receiving a first instruct signal which is effective to instruct a computer at a user station to supplement or complete said television programming at an output device;

selecting one of:

(1) a time at which to communicate said first instruct signal; and

(2) a location to which to communicate said first instruct signal;

communicating said first instruct signal at said selected time or to said selected location; and

storing said television signal and said instruct signal at said storage device.

4. The method of claim 3, further comprising one of the steps of:

embedding said first instruct signal in said television signal;

embedding a code or datum in said television programming that enables said computer to locate some processor code or control a presentation of said television programming in accordance with said first instruct signal;

communicating a program unit identification code to said storage device and storing said program unit identification code at a storage location associated with said television programming;

communicating to and storing at said storage device some information to evidence an availability, use, or usage of said television programming, said first instruct signal, or some processor code at a user station;

storing at said storage device a second instruct signal which is effective at a user station to process data to generate some output to form the basis for the supplementation or completion of said television programming;

storing at said storage device a second instruct signal which is effective at said user station to display a combined or sequential presentation of said television programming and a user specific data;

storing at said storage device a second instruct signal which is effective at said user station to process a user reaction to said television programming;

storing at said storage device a second instruct signal which is effective at a said user station to communicate to a remote station a query for information to be associated with said television programming or to enable display of said television programming;

storing at said storage device a second instruct signal which is effective to control said user station to receive information to be used in the supplementation or completion of said television programming;

storing at said storage device a second instruct signal which is effective at a user station to process a digital television signal; and

storing at said storage device a code or datum to serve as a basis for enabling an output device to display at least some of said television programming or said computer to process some processor code.

5. (Twice Amended) The method of claim 3, wherein said selected location is in said television signal, said method further comprising the step of storing some information at said storage device that evidences one or more of:

(1) a title of a television program;

(2) a proper use of programming;

(3) a transmission station;

(4) a receiver station;

(5) a network;

(6) a broadcast station;

(7) a channel on a cable system;

(8) a time of transmission;

(9) a identification of an instruct signal;

(10) a source or supplier of data;

(11) a [publication, article, publisher,]distributor, or an advertisement; and

(12) an indication of copyright.

6. (Twice Amended) The method of claim 3, wherein said first instruct signal is embedded in said television signal, said method further comprising the steps of:

selecting a second one from the group consisting of:

(1) a datum that identifies a unit of computer software in said television signal;

(2) a datum that specifies some of a way to instruct receiver end equipment what specific [programing]programming to select to play or record other than that immediately at hand, how to load said specific [programing]programming on player or recorder equipment, when and how to play or record said specific [programing]programming other than immediately, how to modify said specific [programing]programming, what equipment or channel or channels to transmit said specific [programing]programming on, when to transmit said specific [programing]programming, and how and where to file or refile or dispose of said specific [programing]programming;

(3) a datum that designates an addressed apparatus;

(4) a datum that specifies where, when, or how to locate a signal;

(5) a datum that informs a processor of a fashion for identifying and processing a signal;

(6) a datum that is part of a decryption code;

(7) a comparison datum that designates a communication schedule; and

embedding the selected second one in said television signal.

7. (Twice Amended) The method of claim 3, wherein said first instruct signal comprises processor code, said method further comprising the steps of:

selecting a second instruct signal, said second instruct signal being one from the group consisting of:

(1) a switch control signal;

(2) a timing control signal;

(3) a locating control signal;

(4) an instruct-to-contact signal that designates a remote receiver station;

(5) an instruct-to-transfer signal that designates a unit of broadcast or cablecast programming;

(6) an instruct-to-delay signal that designates a unit of broadcast or cablecast programming;

(7) an instruct-to-decrypt or instruct-to-interrupt signal that designates a unit of programming and a way to decrypt or interrupt;

(8) an instruct-to-enable or instruct-to-disable signal that designates an apparatus;

(9) an instruct-to-record signal that designates a broadcast or cablecast program;

(10) an instruction signal that controls a multimedia presentation;

(11) an instruction signal that governs a broadcast or cablecast receiver station environment;

(12) an instruct-to-power-on signal that designates a receiver;

(13) an instruct-to-tune signal that designates a receiver or a frequency;

(14) an instruct-to-coordinate signal that designates two apparatus;

(15) an instruct-to-compare signal that designates a news transmission or a computer input;

(16) an identifier signal that causes a computer to instruct a plurality of tuners each to tune to a broadcast or cablecast transmission;

(17) an instruct-to-coordinate signal that designates two units of multimedia information and one of: (1) an output time and (2) an output place;

(18) an instruct-to-generate signal that designates an output datum;

(19) an instruct-to-transmit signal that designates a computer output;

(20) an instruct-to-overlay signal that designates a television image;

(21) an instruct[-that-if] signal that designates a function to perform if a predetermined condition exists;

(22) an instruct-to-enable-and-deliver signal that designates information that supplements a television program;

(23) an instruct-to-transmit signal that designates a computer peripheral storage device;

(24) a code signal that designates a datum to remove or embed; and

(25) a signal addressed to a receiver station apparatus; and

embedding said selected second instruct signal in said television signal.

8. A method of generating and encoding signals to control a presentation comprising the steps of:

receiving and storing a program that contains video information;

receiving an instruction, said instruction having effect to instruct a user station processor to generate or output information to supplement or complete said program;

encoding said instruction, said step of encoding translating said instruction to a first control signal with said effect; and

storing said first control signal in conjunction with said program.

9. The method of claim 8, wherein supplemental program material is stored at the same location as said processor and said first control signal directs said processor to generate a video overlay based on said supplemental material that is coordinated with said video information in said program, said method further comprising the step of:

storing a second control signal in conjunction with said program and said first control signal from said step of encoding, said second control signal having effect at a user station to

query a remote station for said supplemental programming or to receive said supplemental program material in a broadcast or cablecast transmission.

10. The method of claim 8, wherein said first control signal directs said processor to generate a video overlay that is coordinated with said video information in said program, said method further including one step from the group consisting of:

transmitting a combined video signal based on said program and said video overlay generated by said processor over a broadcast or cablecast network to a plurality of receiver stations; and

transmitting a combined video signal from said program and said video overlay generated by said processor to a co-located video display.

11. (Twice Amended) The method of claim 8, further comprising the steps of:

receiving a second instruction, said second instruction being one of the group consisting of:

(1) an instruction which is effective at a user station to generate some output to be associated with a product, service, or information presentation;

(2) an instruction which is effective at a user station to display a combined or sequential presentation of a mass medium program and user specific data;

(3) an instruction which is effective at a user station to process a user reaction to said program;

(4) an instruction which is effective at a user station to communicate to a remote station a query for information to be associated with said program or to enable display of said program;

(5) an instruction which is effective at a user station to [to] receive information to form the basis of the [supplemention]<u>supplementing</u> or completion of said program;

(6) an instruction which is effective at a user station to process a digital television signal; and

(7) an instruction which is effective at a user station to serve as a basis for enabling an output device to display at least some of said program or for enabling said processor to process some processor code;

encoding said second instruction, said second step of encoding translating said second instruction to a second control signal, said second control signal for directing said processor to perform the specified effect indicated by said second instruction; and

storing said second control signal in conjunction with said program.

12. (Twice Amended) The method of claim 8, further including one step from the group consisting of:

embedding said first control signal in the non-visible portion of a television signal;

embedding a code in said program that enables a computer or controller to control a presentation of said program in accordance with said first control signal;

communicating a program unit identification code and storing said program unit identification code at a storage location associated with said program; and

communicating to and storing at a storage location associated with said program some information to evidence an availability, use, or usage of said program at a user station.

13. A method of processing signals in a system of stations including at least one transmitter station and at least one receiver station to control a mass medium programming presentation comprising the steps of:

receiving a signal containing a data file or unit of mass medium programming and communicating said signal to a storage device;

receiving one or more instruct signals which are effective at a broadcast or cablecast transmitter station to communicate said signal to a transmitter and at a receiver station to store said signal or present information contained in said signal at an output device;

communicating said one or more instruct signals to said storage device; and

storing said one or more instruct signals at said storage device in association with said data file or unit of mass medium programming.

14. The method of claim 13, wherein said data file or unit of mass medium programming comprises video, audio, or text, said method further comprising one from the group consisting of:

embedding said one or more instruct signals in a television or radio signal;

embedding a code in said data file or unit of mass medium programming that enables a processor or computer at a user station to receive or output information to supplement or complete said data file or unit of mass medium programming in accordance with said one or more instruct signals;

communicating a program unit identification code to said storage device and storing said program unit identification code at a storage location in said storage device associated with said data file or unit of mass medium programming;

communicating to and storing at said storage device some information to be processed at a user station to evidence an availability, use, or usage of video, audio, or text associated with said data file or unit of mass medium programming;

communicating to and storing at said storage device one or more second instruct signals which are effective at a user station to generate some output to supplement or complete said data file or unit of mass medium programming;

communicating to and storing at said storage device one or more second instruct signals which are effective to generate some output to be associated with said a, service, or information presentation;

communicating to and storing at said storage device one or more second instruct signals which are effective at a receiver station to display a combined or sequential presentation of a mass medium program and user specific data;

communicating to and storing at said storage device one or more second instruct signals which are effective to process a user reaction to said data file or unit of mass medium programming;

communicating to and storing at said storage device one or more second instruct signals which are effective to communicate to a remote station a query for information to be associated with said data file or unit of mass medium programming or to enable display of said data file or unit of mass medium programming;

communicating to and storing at said storage device one or more second instruct signals which are effective to control a user station to receive information to supplement or complete said data file or unit of mass medium programming;

communicating to and storing at said storage device one or more second instruct signals which are effective to process a digital television signal; and

communicating to and storing at said storage device a code or datum to serve as a basis for enabling an output device to display at least some of said data file or unit of mass medium programming or for enabling a processor to process some processor code.

15. (Twice Amended) The method of claim 13, said method further comprising the steps of:

selecting one from the group consisting of:

(1) a datum that identifies a unit of computer software in said signal containing a data file or unit of mass medium programming;

(2) a datum that specifies some of a way to instruct receiver end equipment what specific [programing]programming to select to play or record other than that immediately at hand, how to load said specific [programing]programming on player or recorder equipment, when

and how to play or record said specific [programing]programming other than immediately, how to modify said specific [programing] , what equipment or channel or channels to transmit said specific [programing] on, when to transmit said specific [programing]programming, and how and where to file or refile or dispose of said specific [programing]programming;

(3) a datum that designates an addressed apparatus in a user station;

(4) a datum that specifies where, when, or how to locate a signal;

(5) a datum that informs a processor of a fashion for identifying and processing a signal;

(6) a datum that is part of a decryption code;

(7) a comparison datum that designates a communication schedule; and

embedding said selected one in said signal containing a data file or unit of mass medium programming.

16. (Amended) The method of claim 13, further comprising the step of storing some information at said storage device to evidence an availability, use, or usage of said one or more instruct signals, said evidence information designating or identifying one or more of:

(1) a mass medium program;

(2) a proper use of programming;

(3) a transmission station;

(4) a receiver station;

(5) a network;

(6) a broadcast station;

(7) a channel on a cable system;

(8) a time of transmission;

(9) an instruct signal;

(10) a source or supplier of data;

(11) a [publication, article, publisher,]distributor, or an advertisement; and

(12) an indication of copyright.

17. (Twice Amended) The method of claim 13, wherein said one or more instruct signals comprise downloadable code, said method further comprising the steps of:

selecting a control signal, said control signal being one of:

(1) a switch control signal;

(2) a timing control signal;

(3) a locating control signal;

(4) an instruct-to-contact signal that designates a remote receiver station;

(5) an instruct-to-transfer signal that designates a unit of broadcast or cablecast programming;

(6) an instruct-to-delay signal that designates a unit of broadcast or cablecast programming;

(7) an instruct-to-decrypt or instruct-to-interrupt signal that designates a unit of programming and a way to decrypt or interrupt;

(8) an instruct-to-enable or instruct-to-disable signal that designates an apparatus;

(9) an instruct-to-record signal that designates a broadcast or cablecast program;

(10) a control signal that controls a multimedia presentation;

(11) a control signal that governs a broadcast or cablecast receiver station environment;

(12) an instruct-to-power-on signal that designates a receiver;

(13) an instruct-to-tune signal that designates a receiver or a frequency;

(14) an instruct-to-coordinate signal that designates two apparatus;

(15) an instruct-to-compare signal that designates a news transmission or a computer input;

(16) an identifier signal that causes a computer to instruct a plurality of tuners each to tune to a broadcast or cablecast transmission;

(17) an instruct-to-coordinate signal that designates two units of multimedia information and one of: (1) an output time and (2) an output place;

(18) an instruct-to-generate signal that designates an output datum;

(19) an instruct-to-transmit signal that designates a computer output;

(20) an instruct-to-overlay signal that designates a television image;

(21) an instruct[-that-if] signal that designates a function to perform if a predetermined condition exists;

(22) an instruct-to-enable-and-deliver signal that designates information that supplements a television program;

(23) an instruct-to-transmit signal that designates a computer peripheral storage device;

(24) a code signal that designates a datum to remove or embed; and

(25) a signal addressed to a receiver station apparatus; and

embedding said selected control signal in said signal containing a data file or unit of mass medium programming.

18. An apparatus for providing a mass medium programming presentation comprising:

an output device for outputting a mass medium programming presentation to a user;

a storage device operatively connected to said output device for storing and communicating mass medium program materials and one or more embedded instruct signals effective at the apparatus to supplement or complete said mass medium program materials based on stored data;

a detector operatively connected to said storage device for detecting said one or more embedded instruct signals; and

a processor operatively connected to said storage device, said output device, and said detector for processing data and controlling said storage device and said output device to output said mass medium program materials and the supplemental or completion information in accordance with said embedded instruct signals.

19. A transmitter station apparatus comprising:

a transmitter for transmitting a mass medium programming signal;

a storage device operatively connected to said transmitter for storing and outputting mass medium program materials and one or more instruct signals effective at a receiver station apparatus to supplement or complete said mass medium program materials based on stored data;

a detector operatively connected to said storage device for detecting said one or more instruct signals; and

a computer operatively connected to said storage device and said signal detector for controlling communication of said one or more instruct signals from said storage device to said transmitter.

20. The transmitter station apparatus of claim 19, further comprising:

a signal generator operatively connected to said transmitter and said computer for receiving said one or more instruct signals and embedding said one or more instruct signals on mass medium programming signal.

Please add the following new claims:

--21. (New) The method of claim 3, wherein said storage device comprises a network.

22. (New) The method of claim 3, wherein said storage device comprises a memory.

23. (New) The method of claim 22, wherein said memory comprises a tape.

24. (New) The method of claim 22, wherein said memory comprises a disk.

25. (New) The method of claim 3 further comprising the step of communicating one of said television signal and said instruct signal from a first part of said storage device to a second part of said storage device.

26. (New) The method of claim 25, further comprising the step of reorganizing the storage of said television signal and said instruct signal at said storage device.

27. (New) The method of ~~claim 13~~, wherein said storage device comprises a network.

28. (New) The method of claim 13, wherein said storage device comprises a memory.

29. (New) The ~~apparatus~~ of claim 18, wherein said storage device comprises a network.

30. (New) The apparatus of claim 18, wherein said storage device comprises a memory.

31. (New) The transmitter ~~station~~ apparatus of claim 19, wherein said storage device comprises a network.

32. (New) The transmitter station apparatus of claim 19, wherein said storage device comprises a memory. --

II. REMARKS

A. Introduction

The Office Action dated March 31, 1998 (Office Action) has been carefully reviewed and the foregoing amendments made in response thereto.

Claims 5, 7, 11, 12, 16 and 17 are amended. Claims 21-32 are added. Claims 3-32 are pending in the application.

Claims 3-20 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claims 8-17 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claims 3-17 are rejected under 35 U.S.C. § 102 (e) as being anticipated by Jeffers et al., U.S. Patent No. 4,739,510

Claims 18-20 are rejected under 35 U.S.C. § 102 (b) as being anticipated by Pargee, Jr., U.S. Patent No. 4,422,093.

Claims 3-32 remain active in this application. No new matter is presented in the foregoing amendments. Approval and entry of same is respectfully requested.

B. Withdrawal of Previous Rejection

Applicants note with appreciation the withdrawal of the rejection of the claims in the instant application under double patenting based on the broad analysis of *In re Schneller* as set forth in paragraphs 7-10 of the previous Office Action.

C. Response to Requirement Imposed Upon Applicants to Resolve Alleged Conflicts Between Applicants' Applications.

Applicants respectfully traverse the requirements of the Office Action paragraph 5.

Paragraph 5 of the Office Action requires Applicants to either:

(1) file terminal disclaimers in each of the related 328 applications terminally disclaiming each of the other 327 applications; or

(2) provide an affidavit attesting to the fact that all claims in the 328 applications have been reviewed by applicant and that no conflicting claims exist between the applications; or

(3) resolve all conflicts between claims in the related 328 applications by identifying how all the claims in the instant application are distinct and separate inventions from all the claims in the above identified 328 applications.

In addition, Examiner states that failure to comply with any one of these requirements will result in abandonment of the application.

Examiner states that the requirement has been made because conflicts exist between claims of the related co-pending applications, including the present application. Examiner sets forth only the serial numbers of the co-pending applications without an indication of which claims are conflicting. Examiner has also attached an Appendix providing what is deemed to be clear evidence that conflicting claims exist between the 328 related co-pending applications and the present application. Further, Examiner states that an analysis of all claims in the 328 related co-pending applications would be an extreme burden on the Office requiring millions of claim comparisons.

Applicants respectfully traverse these requirements in that Examiner has both improperly imposed the requirements, and has incorrectly indicated that abandonment will occur upon failure to comply with the requirement. Applicants' traversal is supported by the fact that 37 C.F.R. § 1.78 (b) does not, under the present circumstances, provide Examiner with authority to require Applicants to either: 1) file terminal disclaimers; 2) file an affidavit; or 3) resolve all apparent conflicts. Additionally, the penalty of abandonment of the instant application for failure to comply with the aforementioned requirement is improper for being outside the legitimate authority to impose abandonment upon an application. The following remarks in Section (B) will explain Applicants' basis for this traversal.

1. The PTO's New Requirement is an Unlawfully Promulgated Substantive Rule Outside the Commissioner's Statutory Grant of Power

The PTO Commissioner obtains his statutory rulemaking authority from the Congress through the provisions of Title 35 of the United States Code. The broadest grant of rulemaking

authority -- 35 U.S.C. § 6 (a) -- permits the Commissioner to promulgate regulations directed only to "the conduct of proceedings in the [PTO]". This provision does NOT grant the Commissioner authority to issue substantive rules of patent law. Animal Legal Defense Fund v. Quigg, 932 F.2d 920, 930, 18 USPQ2d 1677, 1686 (Fed. Cir. 1991).[1] Applicants respectfully submit that the Examiner's creation of a new set of requirements based upon 37 CFR § 1.78(b) constitutes an unlawful promulgation of a substantive rule in direct contradiction of a long-established statutory and regulatory scheme.

2. The PTO's Requirement is a Substantive Rule

The first determination is whether the requirement as imposed by the PTO upon Applicants is substantive or a procedural rule. The Administrative Procedure Act offers general guidelines under which all administrative agencies must operate. A fundamental premise of administrative law is that administrative agencies must act solely within their statutory grant of power. *Chevron v. Natural Resources Defense Council*, 467 U.S. 837 (1984). The PTO Commissioner has NOT been granted power to promulgate substantive rules of patent law. *Merck & Co., Inc. v. Kessler*, 80 F.3d 1543 (Fed. Cir. 1996), citing, *Animal Legal Defense Fund v. Quigg*, 932 F.2d 920, 930, 18 USPQ2d 1677, 1686 (Fed. Cir. 1991).

The appropriate test for such a determination is an assessment of the rule' s impact on the Applicants' rights and interests under the patent laws. *Fressola v. Manbeck*, 36 USPQ2d 1211, 1215 (D.D.C. 1995). As the PTO Commissioner has no power to promulgate substantive rules, the Commissioner receives no deference in his interpretation of the statutes and laws that give rise to the instant requirement. *Merck & Co., Inc. v. Kessler*, 80 F.3d 1543 (Fed. Cir. 1996), citing, *Chevron v. Natural Resources Defense Council*, 467 U.S. 837 (1984). When agency rules either (a) depart from existing practice or (b) impact the substantive rights and interests of the effected

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[1]Accord Hoechst Aktiengesellschaft v. Quigg, 917 F.2d 522, 526, 16 USPQ2d 1549, 1552 (Fed. Cir. 1990); Glaxo Operations UK Ltd. v. Quigg, 894 F.2d 392, 398-99, 13 USPQ2d 1628, 1632-33 (Fed. Cir. 1990); Ethicon Inc. v. Quigg, 849 F.2d 1422, 1425, 7 USPQ2d 1152, 1154 (Fed. Cir 1988).

party, the rule must be considered substantive. *Nat'l Ass'n of Home Health Agencies v. Scheiker*, 690 F.2d 932, 949 (D.C. Cir. 1982), *cert. denied*, 459 U.S. 1205 (1983).

a. The PTO Requirement is Substantive Because it Radically Changes Long Existing Patent Practice by Creating a New Requirement Upon Applicants Outside the Scope of 37 C.F.R. § 1.78 (b)

The Examiner's requirement is totally distinguishable from the well articulated requirement authorized by 37 CFR § 1.78 (b), because it (1) creates and imposes a new requirement to avoid abandonment of the application based on the allegation that conflicts exist between claims of the related 328 co-pending applications, and (2) it results in an effective final double patenting rejection without the PTO's affirmative double patenting rejection of the claims. Long existing patent practice recognizes only two types of double patenting, double patenting based on 35 U.S.C. § 101 (statutory double patenting) and double patenting analogous to 35 U.S.C. § 103 (the well-known obviousness type double patenting).[2] These two well established types of double patenting use an objective standard to determine when they are appropriate[3] and have a determinable result on the allowability of the pending claims.

The Examiner's new requirement represents a radical departure from long existing patent practice relevant to conflicting claims between co-pending applications of the same inventive entity. Two well established double patenting standards are based on an objective analysis of

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[2]MPEP § 804(B)(1) states, in an admittedly awkward fashion, that the inquiry for obviousness type double patenting is analogous to a rejection under 35 U.S.C. 103: "since the analysis employed in an obvious-type double patenting determination parallels the guidelines for a 35 U.S.C. 103 rejection, the factual inquires set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are employed when making an obvious-type double patenting analysis".

[3] The objective test for same invention double patenting is whether one of the claims being compared could be literally infringed without literally infringing the other. The objective test for obviousness type double patenting is the same as the objective nonobviousness requirement of patentability with the difference that the disclosure of the first patent may not be used as prior art.

comparing pending and *allowed* claims. However, in the present application, there are no *allowed* claims. The Examiner's new requirement to avoid a double patenting rejection presumes that conflicts exist between claims in the present application and claims in the 327 copending applications. This presumption of conflicts between claims represents a radical departure from long existing patent practice as defined by 37 C.F.R. § 1.78 (b), which states:

> Where two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application.

Clearly, the only requirement authorized by the rule is the elimination of conflicting claims from all but one application where conflicting claims have been determined to exist. Furthermore, in order to determine that conflicting claims do in fact exist in multiple applications, the only possible analysis is obviousness-type double patenting, since there are no allowed or issued claims by which to employ the 35 U.S.C. § 101 statutory double patenting analysis. Once obviousness-type double patenting analysis has been applied and conflicting claims have been determined to exist, only a *provisional* obviousness-type double patenting rejection is possible until claims from one application are allowed.

In summary, the Examiner's new requirement departs from long-established practice because it (1) creates and imposes a new requirement to avoid abandonment of the application based on the allegation that conflicts exist between claims of the related 328 co-pending applications, and (2) it results in an effective final double patenting rejection without the PTO's affirmative double patenting rejection of the claims.

Therefore, the Examiner's new requirement departs from existing practice and therefore is a **substantive rule** beyond the authority of the PTO and is therefore, invalid.

b. The New Requirement is Also a Substantive Rule Because it Adversely Impacts the Rights and Interests of Applicants to Benefits of the Patent

The rights and benefits of a U.S. patent is solely a statutory right. *Merck & Co., Inc. v. Kessler*, 80 F.3d 1543 (Fed. Cir. 1996). The essential statutory right in a patent is the right to

exclude others from making, using and selling the claimed invention during the term of the patent. Courts have recognized that sometimes new procedural rules of the PTO are actually substantive rules, e.g. when the new rule made a substantive difference in the ability of the applicant to claim his discovery. *Fressola v. Manbeck*, 36 USPQ2d 1211, 1214 (D.D.C. 1995) (emphasis added), citing, *In re Pilkington*, 411 F.2d 1345, 1349; 162 USPQ 145 (CCPA 1969); and *In re Steppan*, 394 F.2d 1013, 1019; 156 USPQ 143 (CCPA 1967).

The new requirement, on its face and as applied here, is an instance of a PTO rule making a substantive difference in Applicants' ability to claim their invention and, therefore, must be considered a substantive rule. The requirement denies Applicants rights and benefits expressly conferred by the patent statute. The measure of the value of these denied rights and benefits is that the requirement, as applied here, would deny Applicants the full and complete PTO examination of Applicants' claims on their merits, as specified by 37 C.F.R. § 1.105. In addition, to file terminal disclaimers in each of the related 328 applications terminally disclaiming each of the other 327 applications based on the PTO's incomplete examination on the merits would deny Applicants the benefit of the full patent term of 17 years on each of Applicants' respective applications. Applicants respectfully submit that the requirement has a huge impact on their rights and interests in the presently claimed invention.

c. Conclusion: Substantive Rule

In summary, the requirement is a change to long existing practice and/or has a substantive impact on the rights and interests of Applicants to their invention. Either finding means that the new requirement is a substantive rule. Since the Commissioner has no power to issue substantive rules, the requirement is an improperly promulgated substantive rule having no force of law.

3. The PTO Requirement is Outside the Scope of 37 C.F.R. § 1.78 (b)

Rule 78 (b) states that:

Where two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in

> the absence of good and sufficient reason for their retention during pendency in more than one application.

The only **requirement** that Rule 78 (b) authorizes is the elimination of conflicting claims from all but one co-pending applications.

In the instant Office Action, Examiner has not required the elimination of all conflicting claims from all but one application, but instead has required Applicants to: 1) file terminal disclaimers in each of the related 328 applications; 2) provide an affidavit; or 3) resolve all conflicts between claims in the related 328 applications. None of the options in the requirement is authorized by Rule 78 (b), and therefore Applicants respectfully submit that such a requirement is improper.

With respect to the PTO's authority to act within Rule 78 (b) regarding the rejection of conflicting claims, MPEP § 822.01 states that:

> Under 37 CFR § 1.78 (b), the practice relative to overlapping claims in applications copending before the examiner..., is as follows: Where claims in one application are unpatentable over claims of another application of the same inventive entity because they recite the same invention, *a complete examination should be made of the claims of each application* and all appropriate rejections should be entered in each application, including rejections based upon prior art. *The claims of each application may also be rejected on the grounds of* ***provisional*** *double patenting on the claims of the other application* whether or not any claims avoid the prior art. Where appropriate, the same prior art may be relied upon in each of the applications. MPEP 822.01 (6th Ed., Rev. 3, 1997), (*emphasis added*).

In light of the requirement of the Office Action, MPEP § 822.01 and 37 CFR § 1.78 (b) are not applicable since there has not been any rejection with regard to the elimination of conflicting claims from all but one co-pending application.

4. The Assertion That Failure to Comply with the Requirement Will Result in Abandonment of Applicants' Application is Improper

Applicants' prospective failure to comply with the above requirements cannot properly result in abandonment of the present application. Applicants respectfully submit that abandonment of an application can properly occur only:

(1) for failure to respond within a provided time period (under Rule 135);

(2) as an express abandonment (under Rule 138); or

(3) the result of failing to timely pay the issue fee (under Rule 316).

There is no provision in the rules permitting abandonment for failure to comply with any of the presented requirements. To impose an improper requirement upon Applicants and then hold the application is to be abandoned for failure to comply with the improper requirement violates the rules of practice before the USPTO. Furthermore, Examiner is in effect attempting to create a substantive rule which is above and beyond the rulemaking authority of the USPTO, and therefore is invalid.

In the *Application of Mott,* 539 F.2d 1291, 190 USPQ 536 (CCPA 1976), the applicant had conflicting claims in multiple applications. The CCPA held that action by the Examiner which would result in automatic abandonment of the application was legally untenable. *Id.* at 1296, 190 USPQ at 541. In the present application, Examiner has asserted that there are conflicting claims in multiple applications, and that non-compliance of the Office Action's requirement will result in an automatic abandonment. Therefore, under *Mott's* analysis, the Office Action's result of abandonment of Applicants' application is legally untenable.

5. Response to Apparent Conflict of Claims

Applicants submit that the presentation of the Office Action Appendix fails to demonstrate any conflicts between claims of the present application and claims of the co-pending applications. Rather, the Office Action Appendix compares representative claims of *other* applications in attempt to establish that "conflicting claims exist between the 328 related co-pending applications." Absent any evidence of conflicting claims between the Applicants' present application and any other of Applicants' co-pending applications, any requirement imposed upon Applicants to resolve such alleged conflicts is improper.

6. Request for Withdrawal of Requirement

Therefore, Applicants respectfully request that Examiner reconsider and withdraw the requirement that Applicants: (1) file terminal disclaimers in each of the related 328 applications terminally disclaiming each of the other 327 applications; (2) provide an affidavit attesting to the fact that all claims in the 328 applications have been reviewed by applicant and that no conflicting claims exist between the applications; or (3) resolve all conflicts between claims in the above identified 328 applications by identifying how all the claims in the instant application are distinct and separate inventions from all the claims in the above identified 328 applications, which upon failing to do so will abandon the application.

7. Filing of Supplemental Oath

Notwithstanding the foregoing, Applicants will file a supplemental oath under 37 C.F.R. § 1.67 for each application when Examiner identifies allowable subject matter. Applicants respectfully propose that the filing of individual supplemental oaths attesting to the absence of claim conflicts between previously patented claims and subsequently allowed claims is a more reasonable method of ensuring the patentable distinctness of subsequently allowed claims.

Under 37 C.F.R. § 1.105, § 1.106 & § 1.78 (b), Examiner has the duty to make every applicable rejection, including double patenting rejection. Failure to make every proper rejection denies Applicants all rights and benefits related thereto, e.g., Applicants' right to appeal, etc. Once obviousness-type double patenting analysis has been applied and conflicting claims have been determined to exist, only a *provisional* obviousness-type double patenting rejection is possible until claims from one application are allowed.

D. Information Disclosure Statement

The Applicants appreciate the Examiner's review of the Information Disclosure Statements filed 4/7/97 and have addressed those specific concerns raised in paragraph 6 of the Office Action. It is the Applicants' understanding that the Examiner raised the following 5 issues:

(1) the reasons for such a large number of references cited,

(2) foreign language references cited without a statement of relevance or translation have not been considered,

(3) the relevancy of numerous references listed in the Information Disclosure Statements are subsequent to the Applicants' latest effective filing date of 11/3/81,

(4) citation of references apparently unrelated to the subject matter of the claimed invention, and

(5) citation of database search results listed in foreign languages where no copy was provided.

1. Reason for Citation of Large Number of References

The reason that the Applicants submitted such a large number of references in the Information Disclosure Statements was that a large portion of the information cited by the Applicants was brought to the Applicants' attention in the discovery processes in a previous litigation in the United States District Court for the Eastern District of Virginia (*Personalized Mass Media Corp. v. The Weather Channel, Inc.* Docket No. 2:95 cv 242) and an investigation by the International Trade Commission (*In the Matter of Certain Digital Satellite System (DSS) Receivers And Components Thereof,* No. 337 TA 392, which was direct to U.S. Pat. No. 5,335,277) regarding claims in the Applicants' related issued patents. The documents listed in the Information Disclosure Statement were cited during the previous litigation/investigative proceedings by the alleged infringers in the aforementioned proceedings as being relevant and material to patentability of the claims in the related patents. The Applicants submitted those materials in the Information Disclosure Statement to the PTO at the earliest possible time in order to file them in compliance with the 3 month requirement stated in the certification used to submit the Information Disclosure Statement before the Office Action was issued as is necessary under 37 CFR § 1.97 (c) (1). In such haste, entries were inadvertently submitted which do not appear on their face to be material to the patentability of the present application. Applicants have corrected this error with the submission of the corrected Information Disclosure Statement as shown in Appendix B. However, it is the Applicants' understanding that not all references cited

must be material to patentability in order for such references to be considered. In § 609 of the MPEP, it states,

> "[t]hese individuals also may want the Office to consider information for a variety of reasons: e.g., without first determining whether the information meets any particular standard of materiality, or because another patent office considered the information to be relevant in a counterpart or related patent application filed in another country, or to make sure that the examiner has an opportunity to consider the same information that was considered by the individuals that were substantially involved in the preparation or prosecution of a patent application."

Applicants' position is that information that was considered material in previous litigation would fall into the 'variety of reasons' category as stated above. Applicants intention was not to confuse or make difficult the examination process for the Examiner, but was instead to be forthright and open in disclosing all information deemed to be relevant to the application in issue by third parties.

2. Citations of Foreign Language References

Applicants have re-examined the foreign references listed in all of the Information Disclosure Statements and have either eliminated such references from the list, included translations herewith or provided statements as to the relevancy of such references (APPENDIX A). The inclusion of translations with this response is in compliance with 37 C.F.R. § 1.97 (f) which states in part, "[I]f a bona fide attempt is made to comply with 37 C.F.R. § 1.98, but part of the required content is inadvertently omitted, additional time may be given to enable full compliance." The omission of any translations and/or relevancy statements for foreign references were inadvertent and unintentional and are herein submitted in accordance with 37 C.F.R. § 1.97 (f).

3. References in the Information Disclosure Statements Subsequent to Applicants' Latest Effective Filing Date of 9/11/87

Examiner stated "[n]umerous references listed in the IDS are subsequent to the applicant's latest effective filing date of 9/11/87, therefore, the relevancy of those references is unclear." Upon further examination, the Applicants have eliminated those patents and publications after the

effective filing date for the present application. It is the Applicants' understanding that the effective filing date for the present application is 11/3/81.

4. Citation of Unrelated References

Applicants appreciate the Examiner pointing out such references that were listed yet on their face appear to be unrelated to the subject matter of the present application. In response to such information, the Applicants have reviewed the cited references and removed any such references which appear to be unrelated on their face to the claimed subject matter such as the patent for a beehive, the patent for a chemical compound and numerous computer printout search results.

5. Citation of Database Search Results

Database search results listed in foreign languages where no copy was provided have been eliminated from the substitute Information Disclosure Statement included with this office action.

The Applicants offer the corrected Information Disclosure Statement (APPENDIX B) as a substitute to the previously filed Information Disclosure Statement filed 4/7/97. No new entries have been entered, only citations which have, upon further examination, been determined not to be relevant to the claimed subject matter have been eliminated, typographical errors have been corrected, dates inserted where possible and the list shortened as a result. It is the Applicants' intention that such corrected Information Disclosure Statement will help clarify any issues previously raised by the Examiner and aid in the prosecution of the present patent application.

E. Response to Rejections under 35 U.S.C. § 112

1. Specification Support of Claims 3-20

Paragraph 7 of the Office Action rejects claims 3-20 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The Office Action specified language of claims 3-20 as not being supported by the specification as originally filed.

The following tables list Applicants' claim language in the left column which corresponds to the specification support in the right column.

a. Claim 3

As it is today, "Wall Street Week" was in 1981 a well known Public Broadcasting System program that originated in Owings Mills, Maryland and was rebroadcast all over the United States. The "television studio originating ['Wall Street Week']" is disclosed at col. 19 lines 61-62. As an "[illustration of] one instance of ... the use of Signal Processing Apparatus and Methods ... a cable television system ... that cablecasts several channels of television programming" is disclosed at col. 10 lines 24-28. Among the "programming being cablecast on the multi-channel system ... 'Wall Street Week' is being televised on channel X. " (col. 19 lines 14-23)

Like "Wall Street Week", the programming of Julia Child, including "the French Chef," was in 1981 well known Public Broadcasting System television programming. Julia Childs' "The French Chef' is such program is disclosed at col. 20 lines 19-20.

Receiving a first instruct signal which is effective to instruct a computer at a user station to supplement or	For example, col. 19, lines 43-53 and 63-67; For example, col. 20, lines 47-50 with respect to col. 20 lines 16-24
Complete said television programming at an output device	For example, col. 19, line 67 through col. 20, line 2 with respect to col. 19, lines 59-60.
Selecting one of: (1) a time at which to communicate said first instruct signal	For example, col. 11 lines 28-30, including "when" at line 28.
(2) a location to which to communicate said first instruct signal	For example, col. 11 lines 28-30, including "channel" at line 29; col. 11, line 48.

b. Claim 4

embedding a code or datum in said television programming that enables said computer to locate	For example, col. 19, lines 42-44 with col. 19, lines 14-23 or 45-53.

some processor code or control a presentation of said television programming in accordance with said first instruct signal	
storing at said storage device some information to evidence an availability, use, or usage of said television programming, said first instruct signal, or some processor code at a user station	For example, col. 16, lines 25-50, col. 15, lines 57-60; col. 15 lines 29; col. 18 line 41
storing at said storage device a second instruct signal which is effective at a user station to process data to generate some output to form the basis for the supplementation or completion of said television programming	col. 19 lines 64-67; col. 20 lines 32-36.
storing at said storage device a second instruct signal which is effective at said user station to display a combined or sequential presentation of said television programming and a user specific data	col. 19 lines 42-44 & 64-67
a second instruct signal which is effective at a user station to process a digital television signal	col. 19 lines 65, Col. 19 lines 9-23 (program identifiers)

c. Claim 5

(1) a title of a television program	col. 19 line 14 with 20-23, including "Wall Street Week" at line 22.
(2) a proper use of programming	For Example, col. 2, line 68
(3) a transmission station	For Example, col. 15, line 60
(4) a receiver station	For Example, col. 8, lines 23-24
(5) a network	For Example, col. 15, line 59
(6) a broadcast station	For Example, col. 15, line 60
(7) a channel on a cable system	For Example, col. 15, line 61
(8) a time of transmission	For Example, col. 15, line 61-62
(9) a identification of an instruct signal	For Example, col. 15, line 62
(10) a source or supplier of data	For Example, col. 15, line 65
(11) a distributor, or an advertisement	For Example, col. 15, lines 67-68
(12) an indication of copyright.	For example, col. 21 lines 1 through col. 22 line 4, including

	"Copyrighted Materials" at line 2; col. 21 lines 67 through col. 22 line 2; and "This signal indicates" at col. 20 line 54.

d. Claim 6

(1) a datum that identifies a unit of computer software in said television signal	col. 15 lines 57-60 with col. 19 lines 46-49.
(2) a datum that specifies some of a way to instruct receiver end equipment what specific programming to select	col. 2 lines 4-12
to play or record other than that immediately at hand	col. 11 lines 54-55; col. 10 line 50; col. 11 line 65; col. 2 lines 4-12
how to load said specific programming on player or recorder equipment	col. 11 line 67 to col. 12 line 8; col. 2 lines 4-12
when and how to play or record said specific programming other than immediately	col. 11 lines 38-43 and 57-65; col. 2 lines 4-12
how to modify said specific programming	col. 19 lines 45-53 and 63-67; col. 2 lines 4-12
what equipment or channel or channels to transmit said specific programming on	col. 11 lines 38-43. col. 2 lines 4-12
when to transmit said specific programming	col. 11 lines 38-43 col. 2 lines 4-12
how and where to file or refile or dispose of said specific programming	col. 11 line 67 to col. 12 line 8; col. 2 lines 4-12
(3) a datum that designates an addressed apparatus	col. 17 lines 42-45; col. 16 lines 5-14
(4) a datum that specifies where, when, or how to locate a signal	col. 16 lines 10-11, "channel identifiers" at col. 19 line 14; col. 4 lines 36-46; col. 8 lines 32-35
(5) a datum that informs a processor of a fashion for identifying and processing a signal	col. 20 lines 32-43, with lines 50-53. col. 14 lines 55-57
(6) a datum that is part of a decryption code	col. 13 lines 31-32
(7) a comparison datum that designates a communication schedule	col. 11 lines 38-40; col. 19 lines 42-44 and 60-63; col. 4 lines 5-13; col. 9 line 31-33; see also col. 11 lines 38-39; col. 19 line 27.

e. Claim 7

(1) a switch control signal	col. 11 lines 38-39; col. 11 lines 54-55
(2) a timing control signal	col. 11 lines 38-39; "immediate" at col. 11 line 14, "delayed" at col. 11 lines 59
(3) a locating control signal	col. 11 lines 38-39; "via receiver 53" at col. 11 lines 52, "channel identifiers" at col. 19 line 14.
(4) an instruct-to-contact signal that designates a remote receiver station	col. 8 lines 61-62
(5) an instruct-to-transfer signal that designates a unit of broadcast or cablecast programming	col. 11 lines 38-39; col. 11 lines 54-56
(6) an instruct-to-delay signal that designates a unit of broadcast or cablecast programming	col. 11 lines 38-39; col. 11 lines 59
(7) an instruct-to-decrypt or instruct-to-interrupt signal that designates a unit of programming and a way to decrypt or interrupt	col. 13 lines 24-31
(8) an instruct-to-enable or instruct-to-disable signal that designates an apparatus	col. 13 lines 24-27; col. 13 lines 17-20; col. 14 lines 26
(9) an instruct-to-record signal that designates a broadcast or cablecast program	col. 19 lines 2-5 col. 19 lines 20-27
(10) an instruction signal that controls a multimedia presentation	col. 19 line 30 with lines 42-44
(11) an instruction signal that governs a broadcast or cablecast receiver station environment;	col. 17 lines 39-40 with lines 54-56
(12) an instruct-to-power-on signal that designates a receiver	col. 18 lines 17-21
(13) an instruct-to-tune signal that designates a receiver or a frequency;	col. 18 lines 24-26
(14) an instruct-to-coordinate signal that designates two apparatus;	col. 18 lines 15-29 with line 8
(15) an instruct-to-compare signal that designates a news transmission or a computer input;	col. 18 lines 53-56 with respect to line 59
(16) an identifier signal that causes a computer to instruct a plurality of tuners each to tune to a broadcast	col. 19 lines 14 and lines 20-29

or cablecast transmission	
(17) an instruct-to-coordinate signal that designates two units of multimedia information and one of: (1) an output time and (2) an output place;	col. 19 lines 42-44 with line 30 Col. 19 lines 63, Col. 20 line 1; col. 3 lines 57-58
(18) an instruct-to-generate signal that designates an output datum;	col. 19 lines 45-49 and col. 19 line 67 to col. 20 line 1.
(19) an instruct-to-transmit signal that designates a computer output	Col. 19, line 63 to Col. 20 line 1
(20) an instruct-to-overlay signal that designates a television image	Col. 19, line 63 to Col. 20 line 1
(21) an instruct signal that designates a function to perform if a predetermined condition exists	col. 20 lines 31-38
(22) an instruct-to-enable-and-deliver signal that designates information that supplements a television program	col. 20 lines 39-47; lines 50-55
(23) an instruct-to-transmit signal that designates a computer peripheral storage device	col. 21 lines 28-29
(24) a code signal that designates a datum to remove or embed	col. 21 lines 48-60
(25) a signal addressed to a receiver station apparatus; and embedding said selected second instruct signal in said television signal.	col. 17, lines 39-46

f. Claim 8

effect to instruct a user station processor to generate or output information to	For example, col. 19, lines 43-53 and 63-67;
supplement or	For example, col. 20, lines 47-50 with respect to col. 20 lines 16-24
complete said program;	For example, col. 19, line 67 through col. 20, line 2 with respect to col. 19, lines 59-60.
encoding said instruction, said step of encoding translating said instruction to a first control signal with said effect	For example, col. 9, lines 31-33 with col. 19, lines 60-62 and col. 19, lines 42-43

g. Claim 9

storing a second control signal in conjunction with said program and said first control signal from said step of encoding, said second control signal having effect at a user station to query a remote station for said supplemental programming or to receive said supplemental program material in a broadcast or cablecast transmission	For example, one instruction in second of (i) "These signals instruct microcomputer, **205**, to generate several graphic video overlays" and (ii) "This signal instructs microcomputer, **205**, to transmit the first overlay" at col. 19 lines 48-49 and 64-66 respectively. For example, col. 19, lines 35-41. For example, col. 20, lines 32-37 and 47-50.

h. Claim 11

(1) an instruction which is effective at a user station to generate some output to be associated with a product, service, or information presentation	col. 19 lines 46-53
(2) an instruction which is effective at a user station to display a combined or sequential presentation of a mass medium program and user specific data	col. 19 lines 63-67 For example, col. 19, line 59 through col. 20, line 7
(3) an instruction which is effective at a user station to process a user reaction to said program	col. 20 lines 23-68
(4) an instruction which is effective at a user station to communicate to a remote station a query for information to be associated with said program or to enable display of said program	col. 8 lines 60-62; col. 15 lines 20-25; col. 19 lines 37-41
(5) an instruction which is effective at a user station to receive information to form the basis of the supplementing or completion of said program	col. 8 lines 60-62; col. 20 lines 23-68
(6) an instruction which is effective at a user station to process a digital television signal	For example, col. 19, line 63 through col. 20, line 2.
(7) an instruction which is effective at a user station to serve as a basis for enabling an output device to	col. 8 lines 60-62; col. 9 lines 21-23; col. 15 lines 20-25

display at least some of said program or for enabling said processor to process some processor code	

i. Claim 12

embedding said first control signal in the non-visible portion of a television signal	col. 4 lines 18-22
embedding a code in said program that enables a computer or controller to control a presentation of said program in accordance with said first control signal	col. 20 lines 37-38; col. 19 lines 14-15 and 20-27; col. 11 lines 3-14 including "code reader" at line 12.
communicating a program unit identification code and storing said program unit identification code at a storage location associated with said program	col. 11 lines 38-40, lines 22-24, and lines 62-65; col. 4 lines 5-13; col. 15 lines 57-63 with col. 16 lines 25-32.
communicating to and storing at a storage location associated with said program some information to evidence an availability, use, or usage of said program at a user station	col. 11 lines 38-40, lines 22-24, and lines 62-65 with col. 12 lines 51-55; col. 4 lines 5-13; col. 15 lines 29, col. 18 lines 41, col. 15 lines 57-63 with col. 16 lines 25-32.

j. Claim 13

receiving a signal containing a data file or unit of mass medium programming and communicating said signal to a storage device	For example, col. 19 lines 61-63; col. 12, line 4 and col. 11, lines 62-64..
receiving one or more instruct signals which are effective at a broadcast or cablecast transmitter station to communicate said signal to a transmitter and at a receiver station to store said signal or present information contained in said signal at an output device	For example, col. 11 lines 38-57, including "identification signals on the incoming programming" at lines 38-39 and col. 19 lines 9-23 including "program and channel identifiers" at col. 19, line 14, with col. 19 line 63 through col. 20, line 2.

k. Claim 14

embedding said one or more instruct signals in a television or radio signal	col. 19 lines 42-44 and 60-63; col. 4 lines 5-30; and col. 9 lines 31-33.
embedding a code in said data file or unit of mass medium programming that enables a processor or computer at a user station to receive or output information to supplement or complete said data file or unit of mass medium programming in accordance with said one or more instruct signals	col. 11 lines 3-57, (see lines 38-40 with lines 22-24) col. 4 lines 5-13
communicating a program unit identification code to said storage device and storing said program unit identification code at a storage location in said storage device associated with said data file or unit of mass medium programming	col. 11 lines 3-57, (see lines 38-40 with lines 22-24) col. 4 lines 5-13
communicating to and storing at said storage device some information to be processed at a user station to evidence an availability, use, or usage of video, audio, or text associated with said data file or unit of mass medium programming	col. 11 lines 38-39; col. 19 line 14 to col. 4 lines 5-13 col. 15 lines 29; col. 18 line 41
communicating to and storing at said storage device one or more second instruct signals which are effective at a user station to generate some output to supplement or complete said data file or unit of mass medium programming	col. 19 lines 42-49
communicating to and storing at said storage device one or more second instruct signals which are effective to generate some output to be associated with said a, service, or information presentation	col. 20 lines 32-66, see "printed copy" at col. 20 line 22; col. 19 lines 42-53
communicating to and storing at	col. 19 lines 42-44 & 64-67

said storage device one or more second instruct signals which are effective at a receiver station to display a combined or sequential presentation of a mass medium program and user specific data	
communicating to and storing at said storage device one or more second instruct signals which are effective to process a user reaction to said data file or unit of mass medium programming	col. 11 lines 38-39; col. 19 line 14
communicating to and storing at said storage device one or more second instruct signals which are effective to communicate to a remote station a query for information to be associated with said data file or unit of mass medium programming or to enable display of said data file or unit of mass medium programming	col. 8 lines 60-62; col. 13 lines 13-20; col. 15 lines 15-25; col. 19 lines 37-39
communicating to and storing at said storage device one or more second instruct signals which are effective to control a user station to receive information to supplement or complete said data file or unit of mass medium programming	For example col. 19, line 64-67; For example col. 20, lines 32-36
communicating to and storing at said storage device one or more second instruct signals which are effective to process a digital television signal	col. 19 lines 65, Col. 19 lines 9-23 (program identifiers)
communicating to and storing at said storage device a code or datum to serve as a basis for enabling an output device to display at least some of said data file or unit of mass medium programming or for enabling a processor to process some processor code	col. 19 line 14; col. 4 lines 5-30 col. 19 lines 28-29; col. 20 lines 38-43

l. Claim 15

(1) a datum that identifies a unit of computer software in said signal containing a data file or unit of mass medium programming	For example, col. 15, lines 52-60 For example, col. 12, lines 3-4, lines 28-29, and lines 58-64
(2) a datum that specifies some of a way to instruct receiver end equipment what specific programming to select to play or record other than that immediately at hand, how to load said specific programming on player or recorder equipment, when and how to play or record said specific programming other than immediately, how to modify said specific programming , what equipment or channel or channels to transmit said specific programming on, when to transmit said specific programming, and how and where to file or refile or dispose of said specific programming	For example, col. 2, lines 5-12
(3) a datum that designates an addressed apparatus in a user station	For example, col. 17, lines 39-44
(4) a datum that specifies where, when, or how to locate a signal	For example, col.14, lines 58-59
(5) a datum that informs a processor of a fashion for identifying and processing a signal	For example, col. 14, lines 56-57
(6) a datum that is part of a decryption code	For example, col. 20, lines 39-43
(7) a comparison datum that designates a communication schedule; and embedding said selected one in said signal containing a data file or unit of mass medium programming	For example, col. 11, lines 38-41
embedding said selected one in said signal containing a data file or unit of mass medium programming.	For example, col. 4, lines 5-13 and col. 9, lines 31-33.

m. Claim 16

(1) a mass medium program	col. 19 line 14 with 20-23, including "Wall Street Week" at line 22.
(2) a proper use of programming	For Example, col. 2, line 68
(3) a transmission station	For Example, col. 15, line 60
(4) a receiver station	For Example, col. 8, lines 23-24
(5) a network	For Example, col. 15, line 59
(6) a broadcast station	For Example, col. 15, line 60
(7) a channel on a cable system	For Example, col. 15, line 61
(8) a time of transmission	For Example, col. 15, line 61-62
(9) an instruct signal	For Example, col. 15, line 62
(10) a source or supplier of data	For Example, col. 15, line 65
(11) a distributor, or an advertisement	For Example, col. 15, lines 67-68
(12) an indication of copyright	For example, col. 21 lines 1 through col. 22 line 4, including "Copyrighted Materials" at line 2; col. 21 lines 67 through col. 22 line 2; and "This signal indicates" at col. 20 line 54.

n. Claim 17

(1) a switch control signal	col. 11 lines 38-39; col. 11 lines 54-55
(2) a timing control signal	col. 11 lines 38-39; "immediate" at col. 11 line 14, "delayed" at col. 11 lines 59
(3) a locating control signal	col. 11 lines 38-39; "via receiver 53" at col. 11 lines 52, "channel identifiers" at col. 19 line 14.
(4) an instruct-to-contact signal that designates a remote receiver station	col. 8 lines 61-62
(5) an instruct-to-transfer signal that designates a unit of broadcast or cablecast programming	col. 11 lines 38-39; col. 11 lines 54-56
(6) an instruct-to-delay signal that designates a unit of broadcast or cablecast programming	col. 11 lines 38-39; col. 11 lines 59
(7) an instruct-to-decrypt or instruct-to-interrupt signal that designates a unit of programming and a way to decrypt or interrupt	col. 13 lines 24-31
(8) an instruct-to-enable or instruct-to-disable signal that designates an apparatus	col. 13 lines 24-27; col. 13 lines 17-20; col. 14 lines 26
(9) an instruct-to-record signal that designates a broadcast or cablecast	col. 19 lines 2-5 col. 19 lines 20-27

program	
(10) a control signal that controls a multimedia presentation	col. 19 line 30 with lines 42-44
(11) a control signal that governs a broadcast or cablecast receiver station environment	col. 17 lines 39-40 with lines 54-56
(12) an instruct-to-power-on signal that designates a receiver	col. 18 lines 17-21
(13) an instruct-to-tune signal that designates a receiver or a frequency	col. 18 lines 24-26
(14) an instruct-to-coordinate signal that designates two apparatus	col. 18 lines 15-29 with line 8
(15) an instruct-to-compare signal that designates a news transmission or a computer input	col. 18 lines 53-56 with respect to line 59
(16) an identifier signal that causes a computer to instruct a plurality of tuners each to tune to a broadcast or cablecast transmission	col. 19 lines 14 and lines 20-29
(17) an instruct-to-coordinate signal that designates two units of multimedia information and one of: (1) an output time and (2) an output place	col. 19 lines 42-44 with line 30 Col. 19 lines 63, Col. 20 line 1; col. 3 lines 57-58
(18) an instruct-to-generate signal that designates an output datum	col. 19 lines 45-49 and col. 19 line 67 to col. 20 line 1.
(19) an instruct-to-transmit signal that designates a computer output	Col. 19, line 63 to Col. 20 line 1
(20) an instruct-to-overlay signal that designates a television image	Col. 19, line 63 to Col. 20 line 1
(21) an instruct signal that designates a function to perform if a predetermined condition exists	col. 20 lines 31-38
(22) an instruct-to-enable-and-deliver signal that designates information that supplements a television program	col. 20 lines 39-47; lines 50-55
(23) an instruct-to-transmit signal that designates a computer peripheral storage device	col. 21 lines 28-29
(24) a code signal that designates a datum to remove or embed	col. 21 lines 48-60
(25) a signal addressed to a receiver station apparatus	col. 17, lines 39-46

embedding said selected control signal in said signal containing a data file or unit of mass medium programming	col. 19 lines 26-27 with col. 19 lines 42-44 & col. 4 lines 5-13

o. Claim 18

instruct signals effective at the apparatus to supplement	For example, col. 19, lines 43-53 and 63-67; For example, col. 20, lines 47-50 with respect to col. 20 lines 16-24
or complete said mass medium program materials based on stored data	For example, col. 19, line 67 through col. 20, line 2 with respect to col. 19, lines 59-60.

p. Claim 19

instruct signals effective at a receiver station apparatus to supplement	For example, col. 19, lines 43-53 and 63-67; For example, col. 20, lines 47-50 with respect to col. 20 lines 16-24
or complete said mass medium program materials based on stored data	For example, col. 19, line 67 through col. 20, line 2 with respect to col. 19, lines 59-60.

2. Rejections Under 35 U.S.C. §112, Second Paragraph

Claims 8-17 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention.

Regarding claim 8, Applicants contend that the recitation of "said instruction having effect *to instruct a user station processor to generate or output information to supplement or complete said program*" clearly gives meaning to the term "effect". Further regarding claim 8, the Applicants contend that the term "*first* control signal" is used because a "*second* control signal" is recited in claim 9 which is dependent from claim 8. Therefore a second control signal does exist, contrary to the Office Action's position.

Regarding claim 12, Applicants have amended the claim to correct the antecedent basis problem.

3. Conclusion

Applicants respectfully submit that claims 3-4, 6, 8-10, 13-15, 18-20 and amended claims 5, 7, 11, 12, 16 and 17 of the subject application particularly point out and claim the subject matter sufficiently for one of ordinary skill in the art to comprehend the bounds of the claimed invention. The test for definiteness of a claim is whether one skilled in the art would understand the bounds of the patent claim when read in light of the specification, and if the claims so read reasonably apprise those skilled in the art of the scope of the invention, no more is required. *Credle v. Bond*, 25 F.3d 1556, 30 USPQ2d 1911 (Fed. Cir. 1994). The legal standard for definiteness is whether a claim reasonably apprises those of skill in the art of its scope. *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994). Applicants have amended the claims to enhance clarity and respectfully submit that all pending claims are fully enabled by the specification and distinctly indicate the metes and bounds of the claimed subject matter.

Applicants believe that the above recited changes are sufficient to overcome the rejections under 35 U.S.C. 112, first and second paragraph, and respectfully request withdrawal of these rejections. Applicants provide these specific embodiments in support of the pending claims by way of example only. The claims must be read as broadly as is reasonable in light of the specification, and Applicants in no way intend that their submission of excerpts/examples be construed to unnecessarily restrict the scope of the claimed subject matter.

F. Response to Rejection of Claims for Absence of Novelty

1. 35 U.S.C. § 102 (e) Rejection over Jeffers et al., U.S. Patent No. 4,739,510.

Claims 3-17 are rejected under 35 U.S.C. § 102 (e) as being anticipated by Jeffers et al., U.S. Patent No. 4,739,510. The effective filing date of Jeffers et al. is May 1, 1985, which is subsequent to Applicants' effective filing date of November 3, 1981. Applicants contend that

Jeffers et al. is unavailable as a reference under 35 U.S.C. § 102 (e). Applicants have provided support for the requested claim limitations above. Applicants contend that the support provided herein is sufficient to support the claim for priority to November 3, 1981.

2. 35 U.S.C. § 102 (b) Rejection over Pargee, Jr., U.S. Patent No. 4,422,093

Claims 18-20 are rejected under 35 U.S.C. § 102 (b) as being anticipated by Pargee, Jr., U.S. Patent No. 4,422,093.

a. Independent Claim 18

With respect to Applicants' claim 18, the reference fails to teach, *inter alia,* the Applicants' claim limitation of a storage device operatively connected to said output device for storing and communicating mass medium program materials and one or more embedded instruct signals effective at the apparatus to supplement or complete said mass medium program materials based on stored data. There is no suggestion in Pargee, Jr. of a storage device that stores the mass medium program materials and the embedded instruct signals which are effective to supplement or complete the mass medium program materials. There is no concept in Pargee, Jr. of storing the instruct signals with the original mass medium program material. Instead, Pargee, Jr. discloses that the information which supplements the program materials is separately transmitted upon request of the user and is not stored with the original program.

Pargee, Jr. fails to teach, *inter alia*, the Applicants' claim limitation of a detector operatively connected to said storage device for detecting said one or more embedded instruct signals. Since there is no embedded instruct signal as claimed, there is certainly no suggestion of detecting such instruct signals.

Pargee, Jr. fails to teach, *inter alia*, the Applicants' claim limitation of a processor operatively connected to said storage device, said output device, and said detector for processing data and controlling said storage device and said output device to output said mass medium program materials and the supplemental or completion information in accordance with said embedded instruct signals. Since there is no embedded instruct signal as presently claimed,

Pargee, Jr. does not disclose a processor which controls the storage device and the output device in accordance with said embedded instruct signals. Assuming, *arguendo*, that the signals in Pargee, Jr. are analogous to Applicants' claimed embedded instruct signals, there is still no suggestion of controlling a storage device and an output device in accordance with such signals as presently claimed.

Applicants respectfully submit that the cited art does not anticipate claim 18 since the reference fails to disclose every element of the claimed invention, and Applicants respectfully request that the 35 U.S.C. § 102 (b) rejection of claim 18 be withdrawn.

b. Independent Claim 19

With respect to Applicants' claim 19, the reference fails to teach, *inter alia,* the Applicants' claim limitation of a storage device operatively connected to said transmitter for storing and outputting mass medium program materials and one or more instruct signals effective at a receiver station apparatus to supplement or complete said mass medium program materials based on stored data. There is no suggestion in Pargee, Jr. of a storage device that stores the mass medium program materials and the embedded instruct signals which are effective to supplement or complete the mass medium program materials. There is no concept in Pargee, Jr. of storing any such instruct signals with or without the original mass medium program material. Instead, Pargee, Jr. discloses that the information which supplements the program materials is separately transmitted upon request of the user and is not stored with the original program. Furthermore, the signals in Pargee, Jr. are not effective at a receiver station as presently claimed. The signals in Pargee, Jr. are transmitted to a transmitter station where the supplementary material is then transmitted to the receiver station. Additionally, since there is no concept of an instruct signal which performs any function in Pargee, Jr. based on stored data. The Office Action provides no support from the specification of Pargee, Jr. for teaching such a limitation.

Pargee, Jr. fails to teach, *inter alia*, the Applicants' claim limitation of a detector operatively connected to said storage device for detecting said one or more instruct signals. Since

there is no embedded instruct signal as claimed, there is certainly no suggestion of detecting such instruct signals.

Pargee, Jr. fails to teach, *inter alia*, the Applicants' claim limitation of a computer operatively connected to said storage device and said signal detector for controlling communication of said one or more instruct signals from said storage device to said transmitter. There is no concept in Pargee, Jr. of a computer which controls the communication of instruct signals. Assuming, *arguendo*, that the signals of Pargee, Jr. are analogous to Applicants' claimed embedded instruct signals, there is still no concept of storing those signals as claimed. Therefore, there can be no teaching of communicating such stored instruct signals.

Applicants respectfully submit that the cited art does not anticipate claim 19 since the reference fails to disclose every element of the claimed invention, and Applicants respectfully request that the 35 U.S.C. § 102 (b) rejection of claim 19 be withdrawn.

c. Dependent Claim 20

Claim 20 depends upon independent claim 19. As discussed *supra,* Pargee, Jr. fails to disclose every element of independent claim 19 and thus, *ipso facto*, Pargee, Jr. fails to anticipate dependent claim 20, and therefore, this rejection should be withdrawn and the claim be permitted to issue.

3. Conclusion

Applicants further respectfully submit that claims 3-20 in the present application should be allowed because these methods are not disclosed, taught, suggested, or implied by the applied prior art. For a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *Scripps Clinic & Research Foundation v. Genetech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001, 18 USPQ2d 1896 (Fed. Cir. 1991). Absence from a cited reference of any element of a claim

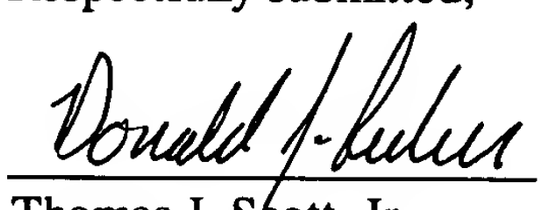
negates anticipation of that claim by the reference. *Kloster Speedsteel AB v Crucible, Inc.*, 230 USPQ 81 (Fed. Cir. 1986), *on rehearing*, 231 USPQ 160 (Fed. Cir. 1986).

III. CONCLUSION

In accordance with the foregoing it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, all pending claims are patentably distinguishable over the prior art of record, taken in any proper combination. Thus, there being no further outstanding objections or rejections, the application is submitted as being in a condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

Respectfully submitted,



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